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Steven Canby's Model for the Future Defense of Central Europe

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Wilfried O.R. Scheffer, LTC, IN, FRG and Roger T. Hilton, MAJ, IN, USA
U.S. Army Command and General Staff College
Fort Leavenworth, Kansas 66027

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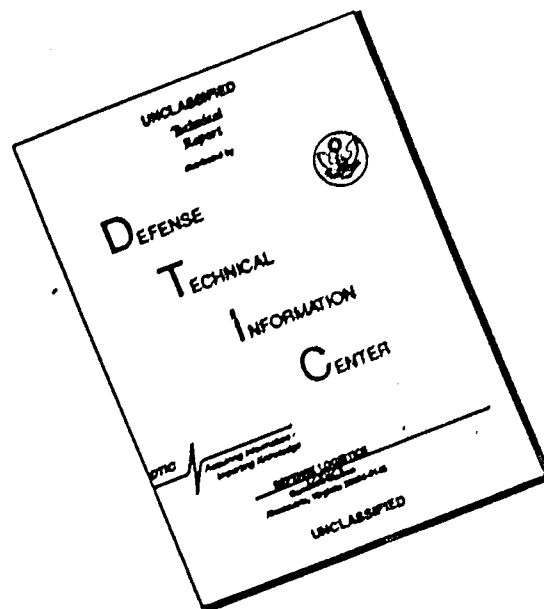
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The purpose of the study was to critically examine Steven Canby's concept of an improved NATO military doctrine and organization/equipment with particular attention to the impact of MBFR.

This study finds some serious objections to Mr. Canby's concept of defense of Central Europe as outlined in Adelphi Paper No. 109. Particular attention is drawn to Canby's proposed system of unit replacement, concept of defense, mobilization concept and restructuring plan. While supporting Mr. Canby's objective of strengthening the conventional defenses, this study concludes that Mr. Canby's major points are so interconnected that once one flaw is found, the entire structure tends to come crashing down. An alternative operational concept is offered.

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LTC W.O.R. SCHUPPER
MAJ R.T. HILTON

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STEVE GA BY'S MODEL FOR THE FUTURE

DEFENSE OF CENTRAL EUROPE

A critical examination
of Adelphi Paper No.109

Fort Leavenworth, Kansas,
May 1975

DIAGNOSTIC

1. Introduction
2. Tactical Aspects
3. Restructuring
4. Conclusions

1. INTRODUCTION

The purpose of this study is to critically examine Steven Canby's concept for an improved defense of Central Europe. Canby believes that the implementation of the NATO strategy of flexible response requires conventional military parity, i.e. the ability of NATO to successfully defend against a concentrated high-speed armored offense with conventional means. Consequently his proposals are aimed at creating a NATO posture and defensive concept which, more than the current ones, take into account the magnitude and nature of the threat, and would eliminate the present destabilizing asymmetry of military power.

Canby's concept is rather comprehensive and complex. Its main features include:

- (1) Restructuring of divisions: More and much smaller divisions, greater weapons density (mainly AT weapons), less pure infantry, less "tail".
- (2) Centralization of combat support and combat service support.
- (3) Specialization of divisions: counter attack divisions; defensive divisions and anti-tank cavalry divisions.
- (4) Screen along the border, light forward defense, "Chequerboard" defense astride anticipated axis of advance, strong reserves in depth.
- (5) Unit replacement instead of individual replacement.
- (6) Exploitation of technological developments which by their nature favor the defense.

Because of given constraints only selected, particularly problematic, aspects of the Canby model will be examined.

There are essentially the tactical concept (including the replacement system) and the reorganization of forces. Based on the examination some suggestions shall be developed for a modification of Canby's concept.

2. TACTICAL ASPECTS

Unit Replacement

There are serious objections to Canby's proposal that we adopt the Soviet system of unit replacement. This system (which incidentally makes possible the extreme centralization of combat service support which Canby emphasizes) meets the conditions of a fluid battlefield. The Soviets use the echelon concept in the offensive, replacing the attacking echelon as it becomes worn out. It is a far more difficult thing to do in the defense. Our strategy is constrained to one of forward defense. Therefore, our tactics and organization must conform to a forward defense -- and unit replacement does not. The need to replace a forward unit in contact could destroy the integrity of the defensive position.

Defense against Infantry

Recall that Canby considers the primary threat to be massed armor -- high speed, using selected avenues of advance. While this is certainly the most dangerous threat, one must remember that the danger is one of a breakthrough: While a breakthrough will be exploited by tanks, it will not be initially made by them.

For those who have not been there, the U.S. area south of Kassel, is not tank country, with forests, steep slopes, medium sized towns, and numerous small streams. The terrain becomes progressively more suited to tanks the further one gets from the border, but defensive positions will initially be forced

by infantry. The probable use of infantry to make the initial penetration is not confined only to the U.S. sector. Tanks will not lead an attack across the Elbe River in the North, or through the Harz, North of Kassel. Even in the remaining gap -- excellent tank country -- barriers and built up areas must necessitate the forward use of infantry -- of course supported by tanks.

Canby only mentions the infantry threat briefly, and dismisses it somewhat cavalierly as "inherently slow moving". Canby further states that infantry night attacks "are really only useful for undermining the defense before a tank thrust -- and that is precisely the point:"

The oversimplification and one-sidedness of Canby's threat evaluation has led him to concentrate on the anti-tank capability of the infantry to the detriment of its anti-infantry capability. Canby proposes a 750 man infantry battalion with 75 major anti-tank weapons. By rough calculations, this would leave only 5 foxhole infantrymen in a squad, as opposed to the 8 which we now have. Such a force would be much more vulnerable to an infantry assault - followed by the tanks.

Precautions must be taken against such overreaction, or degradation of the anti-infantry capability, since it would leave our defenses open to one of the Soviet options. While defense against the tank is of paramount importance to NATO, the new technology confers this capability to infantry formations. Defense against infantry, however, remains a manpower - intensive operation. Only infantry can ^{properly} defend against infantry -- a tank force cannot, and an anti-tank force cannot.

Operational Concept

According to Canby, NATO could make 50 divisions available for the defense of Central Europe. Their type and state

of readiness are shown on figure 1:

Figure 1

Divisions available (Canby's Model)

a. By state of readiness:

Cat I 15 (Be, FR, GE, E)

90% up to 20 (CA, UK, US)

Cat II 20

50%

Cat II 25

25%

Total: up to 30 divisions (29 Divisions)

Divisional slice: 20,000 troops (40,000 troops)

b. By Type:

5 light AT cav divisions

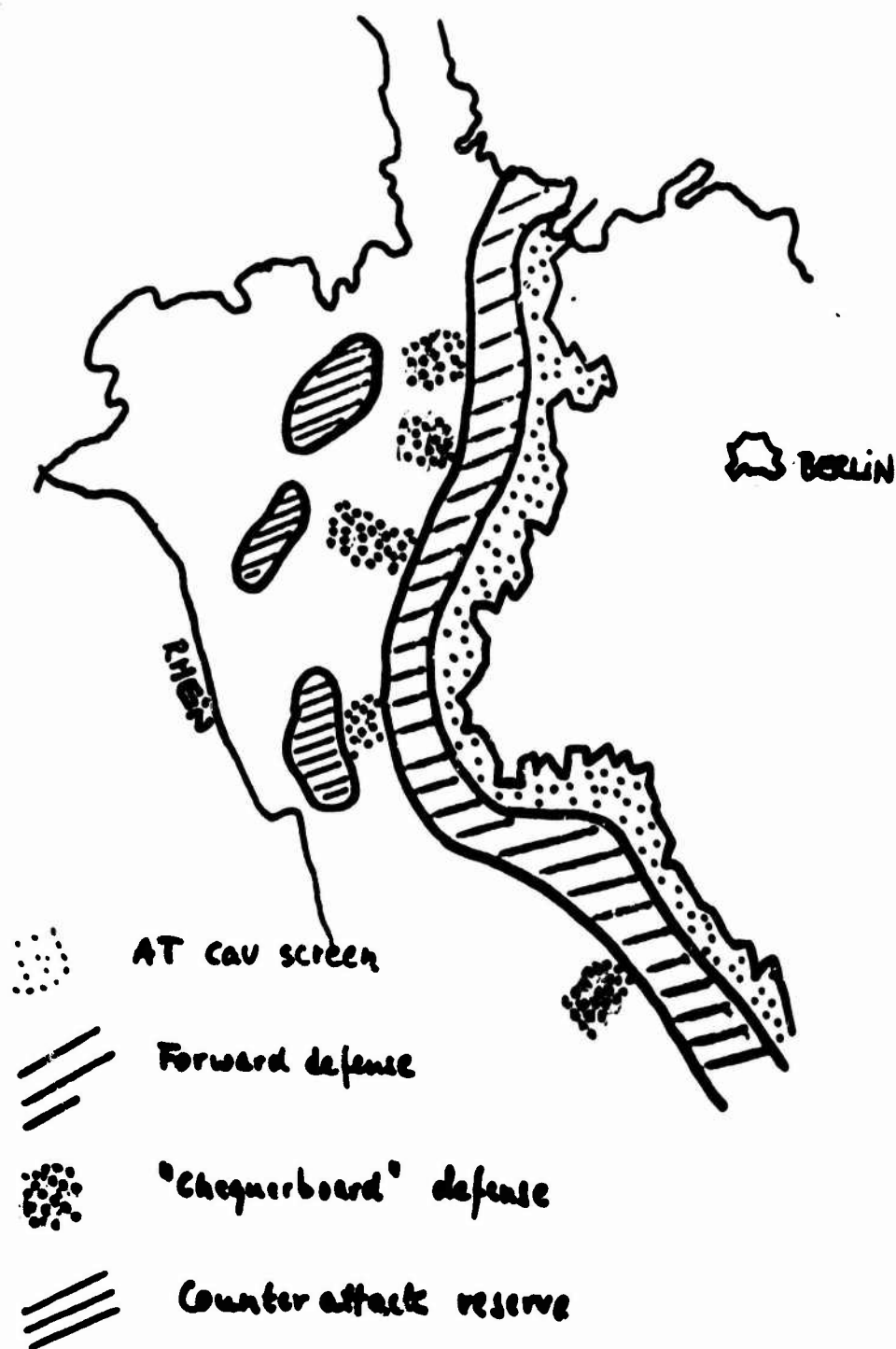
25 counterattack divisions CAT I
(armored/mech)

50 Defensive divisions CAT II & III

Canby suggests to employ these 30 divisions as follows:
(see figure 2)

Figure 2

Canby's Model



penetration
at I, II & 7
III divisions

- 5 Category I anti-tank cav divisions screen along the border.
- 15 defensive divisions are assigned to forward defense. These divisions are Cat. II divisions. In case of a surprise attack their role in the forward defense has to be assumed by Cat. I counter attack divisions which - after mobilization - would then have to be relieved by the assigned Cat. II divisions.
- 35 divisions - most of them defensive divisions of the Cat. II and III - would be kept in general reserve. They would be employed in a "chequerboard" defense in the depth of anticipated penetrations, and also provide rear area security.
- 25 counter attack divisions would be employed to destroy enemy forces penetrating into or through the "chequerboard" defense or to conduct major counter offenses.

This concept has severe disadvantages:

- (1) It seems unlikely that the Cat. II divisions assigned to forward defense would ever be mobilized and employed early enough to fulfill their mission from the outbreak of hostilities. It must be assumed that the aggressor knows the NATO concept and would therefore plan for a surprise attack. Consequently a major portion of the Cat. I counter attack divisions would have to be employed in forward defense. Because of the wide frontages they would probably be worn out heavily in their attempt to defend until the general reserve is mobilized and their redeployment and later use as counterattack force is questionable. Their relief by Cat. II divisions in the forward defense positions cannot realistically be assumed. As a result, NATO's strongest, present forces are in danger to be defeated piecemeal.

- (2) Canby's concept means essentially that comparatively light forces, which have to be mobilized, conduct the defense forward and subsequently in the "chequerboard" system, whereas the heavy peacetime divisions are kept far to the rear, mainly in a counterattack role. This is not acceptable for political and military reasons. It would enable the aggressor to seize a great part of Germany before NATO would commit its strongest forces. The aggressor could then, e.g. by threatening with an escalation to nuclear war, terminate the conflict using the occupied territory as a base.
- (3) Canby allocates a major portion of the manpower available in peacetime - about one third - to cadre divisions. These troops could not be used for the initial defense against an aggression with little or no warning. It seems that the creation of more present divisions at the account of smaller cadres (not more than 20%) would be more advantageous: It would provide for more combat power available at any given time and yet ensure adequate planning, preparation and execution of a mobilization.
- (4) The proposed concept depends heavily on the assumption that the aggressor is bound to some six definable main avenues of approach. If he would choose to penetrate elsewhere - and it is suggested that he in fact has this option - it would hardly be possible to move general reserve and prepare the "chequerboard" defense in time. Canby's claim that the defender ought to concentrate his forces as much as the aggressor, adapting his plans to the anticipated offense plan disregards the basic differences between offense and defense.

3. RESTRUCTURING

The essence of Canby's restructuring proposals is the creation of a division slice halve the size of the present one with the same foxhole strength as today. While it is admitted that the present structure of NATO forces, in particular U.S. forces, allows some streamlining without reducing the combat strength, one must recognize that there are certain limitations:

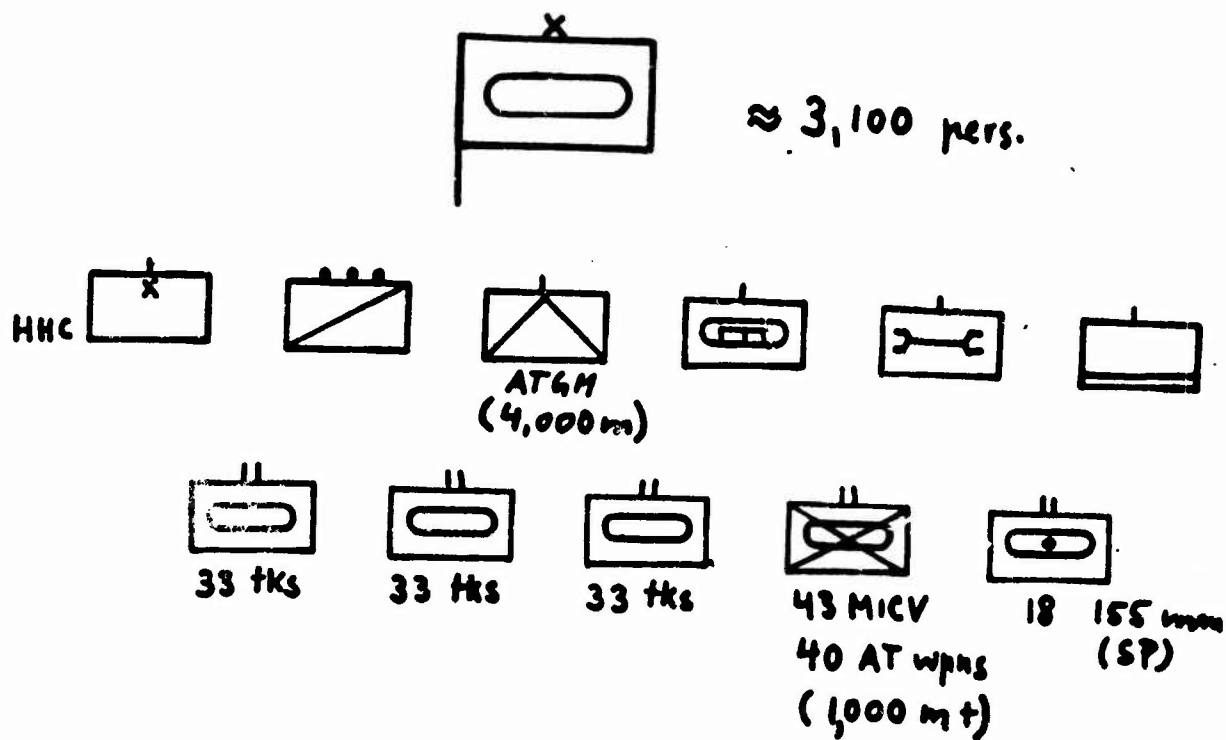
- (1) Modern weapons systems have to have a considerable logistical back up to provide their maximum effectiveness.
- (2) Adequate combat and combat service support must be provided ^{to all formations} to make full use of their capabilities. The proposed centralized combat and combat service support system in which the austere division would be "plugged in" would guarantee adequate support, and thus maximum effectiveness, only for that part of the army employed at the point of main effort. This is not acceptable because formations not employed at the point of main effort need - since they normally have wider sectors - as much support as others to fulfill their mission.
- (3) A strong concentration of combat and combat service support in certain threatened areas is only viable if the capability exists to rapidly shift this main effort if necessary. This would probably not work in war.
- (4) ^{to assume} It is unrealistic that the NATO soldier could live and fight in an as austere environment as the WP soldier can. The structure of the armed forces have necessarily taken into account the social and economic structure of the country.

Detailed calculations as to what the minimum strength of a divisional slice could be under present conditions were not possible. The new structure of the brigade 80 (Figure 3) shows what the German army considers to be necessary in a balanced major combat formation. This structure is characterized by high weapons density and austere support. But again, to be fully effective this brigade depends on sufficient combat and combat service support from higher commands.

The U.S. Army in Europe has undergone some restructuring recently, to include the conversion to H-series TOE, creation of a new tank battalion in the mechanized divisions, elimination of some headquarters, and the Third Amendment restructuring.

Figure 3 -10-

Panzer Brigade 80



The function of maintenance may serve to illustrate some points relative to centralization of combat service support.

A mechanized infantry battalion has 172 vehicles, varying from front line ambulances to tank retrievers (figure 4). The battalion also has a wide variety of communications, ground surveillance, armaments, generators, and other equipment requiring maintenance by trained specialists.

A Soviet battalion has 30 of one type of armored personnel carrier, a half dozen odd wheeled vehicles, the radios and weapons on the vehicles, and the individual soldiers' equipment. All mortars, surveillance, medical support, mess, transportation, etc., are provided by the regiment.

Little wonder then, that U.S. battalions and companies have organic maintenance personnel -- they are designed to fight independently. The Soviet battalion cannot fight without reinforcement. The basic combined arms team of the Soviet Army is the regiment -- which has a sizeable maintenance organization.

Maintenance, therefore, is a function of the concept of the unit's employment, as well as equipment density. Here Casby is not consistent: He wants to centralize maintenance at higher levels, but wants the defense organized in battalion/company strong points.

In the area of ammunition, the Soviets are definitely more centralized: The U.S. combat vehicles carry a greater basic load, and the U.S. battalion carries a far greater amount of class V in its organic support platoon trucks. The discussion of ammunition, however, points up the overall consideration of the offensive in centralizing support. The side on the offensive can plan the time and place of the attack, and spot ammunition.

accordingly; the defensive force must have the necessary ammunition on hand at all points. Centralizing ammunition support in the defensive would be to accept a high risk.

FIGURE 4

EQUIPMENT DENSITY
(mechanized infantry)

	U.S.	SOVIET
Company	26 vehicles APC trucks ATGM Mortars Communications	10 vehicles APC communications
Battalion	172 vehicles APC Recon Vehicles Command Post vehicles ATGM Mortars Radars misc. wheeled vehicles medical support mess support communications	36 vehicles (approx) APC misc wheeled vehicles Communications
Regiment		250 vehicles (approx) APC Recon vehicles Tanks ATGM Mortars misc. wheeled vehicles medical support mess support Air defense equipment

4. CONCLUSIONS

ad 1
The major points in Canby's defense are interconnected. Once a flaw is found in one, such as centralization, or unit replacement, the entire structure tends to come crashing down. Canby's purpose, however, is unassailable: He emphasizes the importance and benefits of technological progress, and stresses the need to integrate technology with tactics and organization to provide the depth and reserves which are now lacking in the NATO defense.

Technology and Tactics:

Present U.S. defensive doctrine calls for several belts of forces - covering force, COP, COP, -- forward of the main defensive position. This is not a true defense in depth, however, since the forward forces do not have a defense mission, but one of delay, deception and intelligence gathering. New antitank weapons might give these forces an attrition capability but it is not being fully used. Further, as I stated earlier it is most likely that the initial defensive positions will be attacked by infantry, and our most forward force -- the Cav -- has a poor anti-infantry capability, particularly in periods of reduced visibility or in forested or build-up areas.

The attrition mission must be stressed, and additional forces must be allocated to the forces forward of the FEBA. Infantry, with its new AT capability must be provided to the covering force, to free the Sheridans to maneuver against developed tank penetrations. Presently there is an unwillingness to provide strong forces to these echelons, since losses must ultimately be borne by the already thin reserve.

1
The creation of additional brigade sized units now under way -- the new German brigades and the two U.S. brigades bound for Europe (at least one of which will be in the NORTHAG army) would be ideal for an improved forward of the FEBA attrition capability.

Secondly, it sufficient notice has been taken of the addition of the infantry squad ATGM (Dragon) to the inventory. This weapon makes it possible to more effectively use the other major infantry ATGM -- the TOW.

Presently, an infantry battalion in reserve requires its TOW's, to provide its own anti-tank defense, provide defense in depth or occupy blocking positions. With the Dragon, placing an entire infantry battalion's AT weapons in reserve is a clear waste -- much like placing artillery in reserve. The Battalion AT platoon (12 TOW's) could be better employed on the FEBA, or forward of the FEBA. This would still leave the battalion its Dragons and 6 TOW (organic to companies) for blocking missions.

Creation of an AT Company at Brigade, with 12 TOW habitually attached out to each mech battalion on the FEBA and the remainder at critical points -- or attachment of the unit to forces forward of the FEBA -- should be seriously considered.

These are ^{but} only two of the ways in which present tactical organization and ground tactics can be adapted to improved technology.

An alternative operational concept

Canby's use of mobilization forces in his strategic concept as the main forward defense force is not convincing, for reasons discussed earlier. An alternative which would incorporate many of Canby's suggestions could be as following: (see figure 5)

- Forward defense with all present (armored and mechanized) formations, including a screen of reinforced Cav divisions.
- Preparation of a second defense belt by AT heavy infantry divisions. (These infantry divisions would in peacetime be held at cadre strength of 15 to 20 percent and be mobilized in an emergency). Only if the forward defense would no longer be tenable, the armored forces would be withdrawn through the second defense belt, and, after regeneration, become the reserve.
- To meet the greater threat along probable avenues of approach, narrower sectors would be assigned in these areas, and particularly well equipped and trained divisions would be selected for their defense.

The most important advantage of this concept against the Canby plan is that it calls for a strong forward defense using all divisions operational in peacetime. Only a comparatively small portion of the active troops would be used as cadres to maintain the mobilization divisions. The concept would be less dependent on timely warning and give the cadre units time for mobilization. Strong reserves would be available in depth if the forward defense should not hold.

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Figure 5

An Alternative

